

Attachment 2

Table 1/Typical properties of EPON<sup>®</sup> Resin 9405/EPI-CURE<sup>®</sup> 9470 Curing Agent at various cure temperatures, times and mix ratios

	MDT 264 psi °F		Tensile Strength ksi		Tensile Modulus ksi		Tensile Elongation %	
Mix ratio EPON <sup>®</sup> Resin 9405/ EPI-CURE <sup>®</sup> 9470 Curing Agent	100	100	100	100	100	100	100	100
	28	37	28	37	28	37	28	37
4 hour cure at								
250 °F <sup>1</sup>	252	261	8.6	11.2	422	410	2.5	7.5
275 °F <sup>1</sup>	286	288	12.2	11.8	403	355	6.7	10.7
300 °F	307	261	9.3	11.5	386	407	3.8	8.2
8 hour cure at								
250 °F <sup>1</sup>	277	286	11.7	10.9	429	396	5.3	8.9
275 °F <sup>1</sup>	304	271	11.8	11.6	419	357	5.8	9.0
300 °F	329	264	11.1	11.4	401	404	5.5	9.1

<sup>1</sup>Castings cured at 250 °F and 275 °F were cured 1 hour at 212 °F before taken to temperature.

Dynamic mechanical analysis (DMA) profiles for EPON Resin 9405/EPI-CURE 9470 Curing Agent are available upon request.

Table 2/Comparison of neat resin properties for EPON<sup>®</sup> Resin 9405/EPI-CURE<sup>®</sup> 9470 Curing Agent (28 and 37 phr) and TGMDA/DDS (49.6 phr)

	EPON Resin 9405/ EPI-CURE 9470 Curing Agent <sup>1</sup> (28 phr)	EPON Resin 9405/ EPI-CURE 9470 Curing Agent <sup>1</sup> (37 phr)	TGMDA/DDS <sup>2</sup>
T <sub>g</sub> , dry, °F	358	297	507
T <sub>g</sub> , wet, °F	333		329
Moisture gain, <sup>3</sup> % wt	1.17	1.31	7.5
→ Density, cured, g/cc	1.161	1.158	
→ Tensile strength, ksi	11.3	11.7	8.5
Tensile modulus, ksi	413	427	542
Tensile ultimate strain, %	6.2	8.5	1.8
Flexural strength, ksi	15.8	18.3	17
Flexural modulus, ksi	411	448	560

<sup>1</sup>Cure schedule - 1 hour at 176 °F, 1 hour at 250 °F, 1 hour at 300 °F, 4 hours at 350 °F.

<sup>2</sup>Cure schedule - 2 hours at 300 °F, 4 hours at 392 °F.

<sup>3</sup>EPON Resin 9405/EPI-CURE 9470 Curing Agent - 3 day soak at 200 °F; TGMDA/DDS - 2 week soak at 200 °F.

## Neat resin system properties

### Accelerated

The cure behavior of the EPON Resin 9405/EPI-CURE 9470 Curing Agent system may be adjusted using EPI-CURE Curing Agent Accelerator 537. This material will increase the rate of cure while maintaining a long room temperature working time, low mix viscosity, and material properties. The following figures show the effect of accelerator on neat resin properties.